

ABSTRACT

A solution to determining the move set ordering in pattern searching is disclosed that involves driving a pattern search algorithm by a metric other than the step size of the patterns. An instance of this metric is the amount of change in an objective function. Preprocessing algorithms are disclosed which quantify the effect each move has on the objective function. Those moves having a greater effect on the objective function are applied before moves having a lesser effect. We call this effect on the object function the sensitivity of the object function to a particular move and present several methods to quantify it. The sensitivity may be expressed as a function or the moves can be ranked and clustered with the pattern search being driven by the ranked moves or the function.